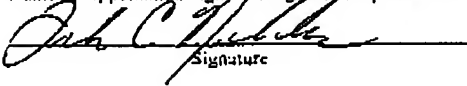


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FRANK C. NICHOLAS (33,983)  
Name of Appellant, assignor or registered representative  
  
Signature  
January 7, 2004  
Date of Signature

PATENT  
Case No. GB 010034  
(7790/245)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

KEVIN R. BOYLE

Serial No.: 10/084,709

Filed: FEBRUARY 25, 2002

For: ANTENNA ARRANGEMENT

Examiner: Clinger, James C

Group Art Unit: 2821

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellant herewith respectfully presents a Brief on Appeal as follows:

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1. REAL PARTY IN INTEREST

The real party in interest is Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA. Koninklijke Philips Electronics N.V. is the ultimate parent of the assignee of record Philips Electronics North America Corporation, a Delaware corporation having an office and a place of business at 1251 Avenue of the Americas, New York, NY 10020-1104. Philips Electronics North America Corporation intends to further assign this application to Koninklijke Philips Electronics N.V..

2. RELATED APPEALS AND INTERFERENCES

Appellant and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Claims 1-11 have been cancelled from the application, and claims 12-30 are currently the claims pending in the application. Claims 20, 21, 29 and 30 have been deemed allowable by Examiner Clinger. Claims 12-19, and 22-28 are the claims on appeal. See, the Appendix. Claims 12 and 13 stand finally rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,498,586 to *Punkinaho*. Claims 14-19 and 22-28 stand finally rejected under 35 U.S.C. §103(b) as being unpatentable over *Punkinaho* in view of European Patent No. 0993979 to *Saito*.

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4. STATUS OF AMENDMENTS

A request for reconsideration under 37 C.F.R. §1.112 involving (1) a cancellation of pending claims 1-11 and an addition of new claims 12-30 was filed on 05/05/2003, and entered into the application by Examiner Clinger. A request for reconsideration under 37 C.F.R. §1.116 involving an amendment of claims 20 and 29 was filed on 07/28/2003, and entered into the application by Examiner Clinger.

5. SUMMARY OF THE INVENTION

As illustrated in FIG. 11, one aspect of the invention employs a planar patch conductor 102, a first radio circuit 302, and a second radio circuit. The planar patch conductor 102 includes a slot 202 asymmetrically dividing the planar patch conductor 102 into a first section and a second section where the second section is larger than the first section. The first radio circuit 302 is connected to the first section at a feed connection point 106. The second radio circuit is connected to the second section at a ground connection point 108, wherein the second radio circuit includes a switch 304 and a passive circuit (ground) for operating the antenna arrangement in a plurality of modes. *See, U.S. Patent Application Serial No. 10/084,709 at page 17, lines 15-26.*

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As illustrated in FIGS. 12 and 13, a second aspect of the invention employs a planar patch conductor 102, a first radio circuit 302, a second radio circuit (switch 404 and ground), and a third radio circuit (switch 304 and ground). The planar patch conductor 102 includes a first slot 202 dividing the planar patch conductor 102 into a first section and a second section. The first radio circuit 302 is connected to the first section at a feed connection point 106. The second radio circuit (switch 404 and ground) is connected to the first section at a first ground connection point 402. The third radio circuit (switch 304 and ground) is connected to the second section at a second ground connection point 108. *See, U.S. Patent Application Serial No. 10/084,709* at page 7, line 27 to page 8, line 15.

As illustrated in FIGS. 14 and 15, a third aspect of the invention employs a planar patch conductor 102, a first radio circuit (source 602 and filter 604), a second radio circuit, and a third radio circuit (source 606 and filter 608). The planar patch conductor 102 includes a first slot 202 dividing the planar patch conductor 102 into a first section and a second section. The first radio circuit (source 602 and filter 604) is connected to the first section at a feed connection point 106. The second radio circuit (ground) is connected to the first section at a first ground connection point 610. The third radio circuit (source 606 and filter 608) is connected to the second section at a second feed connection point. *See, U.S. Patent Application Serial No. 10/084,709* at page 8, lines 16-32.

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6. ISSUE

Whether claims 12 and 13 are patentable over *Pankinaho*, and whether claims 14-19 and 22-28 are patentable over *Pankinaho* in view of *Saito*.

7. GROUPING OF CLAIMS

The claims should be considered in three (3) separate claim groups:

Claim Group I includes independent claim 12, and claim 13 depending from claim 12.

Claim Group II includes independent claim 14, and claims 15-19 depending from claim 14.

Claim Group III includes independent claim 22, and claims 23-28 depending from claim 22.

8. ARGUMENTS

Claims 12 and 13. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim" *Richardson v. Suzuki Motor Co.*, 868

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F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The Appellant respectfully traverses the rejections of claims 12 and 13, because *Pankinaho* fails to disclose, teach or suggest "a first radio circuit connected to said first section at a feed connection point".

First, Examiner Clinger's assertion that *Pankinaho* discloses a conductor with an asymmetrically dividing slot between a section 102 and a section 103 is clearly erroneous, because *Pankinaho* unequivocally teaches conductors 102 and 103 as two separate and distinct conductors that are both individually connected to a feeding point connection 107 via a coupling line 106. See, *Pankinaho* at column 12, line 47 to column 13, line 5.

As to the traversal, *Pankinaho* discloses a planar conductor 102 including a slot 110 asymmetrically dividing conductor 102 into one section connected to a feed connection point 107, and a second section connected to a ground connection point 108. *Pankinaho* further discloses two radio circuit embodiments. In the first radio circuit embodiment as illustrated in FIG. 10, *Pankinaho* discloses a circuit C1, S1 that is connected to neither feed connection point 107 nor ground connection point 108. In a second radio circuit embodiment as illustrated in FIG. 13, *Pankinaho* discloses a circuit C3 and a circuit C2, S2 that are both connected to ground connection point 108. Thus, *Pankinaho* does not teach any radio circuit being connected to feed connection point 107.

Withdrawal of the rejection of independent claim 12 under 35 U.S.C. §102(e) as being anticipated by *Pankinaho* is therefore respectfully requested.

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Please note that claim 12 incorrectly recites "said first section being larger than said second section" and should correctly recite "said first section being smaller than said second section". However, this claim limitation is not relevant to the argument presented herein as to the distinction of independent claim 12 over *Pankinaho*.

Claim 13 depends from independent claim 12. Therefore, dependent claim 13 includes all of the elements and limitations of independent claim 12. It is therefore respectfully submitted by the Applicant that dependent claims 13 is allowable over *Pankinaho* for at least the same reason as set forth herein with respect to independent claim 12 being allowable over *Pankinaho*. Withdrawal of the rejection of dependent claim 13 under 35 U.S.C. §102(e) as being anticipated by *Pankinaho* is respectfully requested.

Claims 14-19 and 22-28. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, MPEP §2143.

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The Appellant respectfully traverses the rejections of claims 14-19 and 22-28, because *Pankinaho* and *Suito* in combination fail to disclose, teach or suggest "a second radio circuit connected to said first section at a first ground connection point" as recited in independent claim 14, and "a first radio circuit connected to said first section at a first feed connection point" as recited in independent claim 22.

As to the traversal of independent claim 14, Examiner Clinger has correctly recognized the failure by *Pankinaho* to disclose the aforementioned limitation of independent claim 14. A careful review of *Suito* also reveals that *Suito* fails to teach the aforementioned limitation of independent claim 14. Specifically, as illustrated in FIG. 4, *Suito* teaches a pair of radio circuits connected to a single section of a conductor 2 via a pair of ground connection points 5 and 6. See, *Suito* at column 8, lines 32-56. Thus, one skilled in the art following the teachings of *Suito* would connect a pair of radio circuits to a single section of conductor 102 of *Pankinaho* via a couple of points on ground connection point 108. However, *Pankinaho* already discloses such an embodiment as illustrated in FIG. 13. Thus, one skilled in the art would not even be motivated to apply the teachings of *Suito* to *Pankinaho*.

Withdrawal of the rejection of independent claim 14 under 35 U.S.C. §103(a) as being unpatentable over *Pankinaho* in view of *Suito* is therefore respectfully requested.



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Claims 15-19 from independent claim 14. Therefore, dependent claims 15-19 including all of the elements and limitations of independent claim 14. It is therefore respectfully submitted by the Applicant that dependent claims 15-19 are allowable over *Pankinaho* in view of *Saito* for at least the same reason as set forth herein with respect to independent claim 14 being allowable over *Pankinaho* in view of *Saito*. Withdrawal of the rejection of dependent claims 15-19 under 35 U.S.C. §103(a) as being unpatentable over *Pankinaho* in view of *Saito* is therefore respectfully requested.

As to the traversal of independent claim 22, Examiner Clinger's assertion that *Pankinaho* discloses a conductor with an asymmetrically dividing slot between a section 102 and a section 103 is clearly erroneous, because *Pankinaho* unequivocally teaches conductors 102 and 103 as two separate and distinct conductors that are both individually connected to a feeding point connection 107 via a coupling line 106. See, *Pankinaho* at column 12, line 47 to column 13, line 5. *Pankinaho* actually discloses a planar conductor 102 including a slot 110 asymmetrically dividing conductor 102 into a first section connected to a ground connection point 108, and a second section connected to a feed connection point 107. Thus, *Pankinaho* clearly fails to teach a radio circuit connected to feed connection point 107, and fails to teach an additional feed point connection connected to the first section. As illustrated in FIG. 4, *Saito* teaches a trio of radio circuits connected to a single section of a conductor 2 via a feed connection point 4 and a

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ground connection points 5 and 6. See, *Saito* at column 8, lines 32-56. Thus, while *Saito* arguably teaches the additional feed point connection connected to the first section, *Saito* fails to teach a connection of a radio circuit to a feed connection point connected to a difference section of conductor 2. Consequently, one skilled in the art would not be motivated to connect a radio circuit to feed connection point 107 in view of the teachings of *Saito*.

Withdrawal of the rejection of independent claim 22 under 35 U.S.C. §103(a) as being unpatentable over *Pankinaho* in view of *Saito* is therefore respectfully requested.

Claims 23-28 from independent claim 22. Therefore, dependent claims 23-28 including all of the elements and limitations of independent claim 22. It is therefore respectfully submitted by the Applicant that dependent claims 23-28 are allowable over *Pankinaho* in view of *Saito* for at least the same reason as set forth herein with respect to independent claim 22 being allowable over *Pankinaho* in view of *Saito*. Withdrawal of the

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rejection of dependent claims 23-28 under 35 U.S.C. §103(a) as being unpatentable over  
*Punkinaho* in view of *Suito* is therefore respectfully requested.

Dated: January 7, 2004

Respectfully submitted,  
KEVIN R. BOYLE

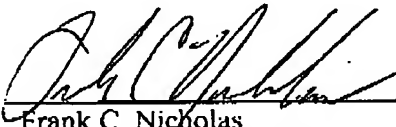
PHILIPS INTELLECTUAL PROPERTY  
& STANDARDS  
P.O. Box 3001  
Briarcliff, New York 10510  
Phone: (914) 333-9612  
Fax: (914) 332-0615

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Jack D. Slobod  
Registration No. 26,236  
Attorney for Appellant

CARDINAL LAW GROUP  
Suite 2000  
1603 Orrington Avenue  
Evanston, Illinois 60201  
Phone: (847) 905-7111  
Fax: (847) 905-7113

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Frank C. Nicholas  
Registration No. 33,983  
Attorney for Appellant

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APPENDIX

12 An antenna arrangement, comprising:

a planar patch conductor including a slot asymmetrically dividing said planar patch conductor into a first section and a second section, said first section being larger than said second section;

a first radio circuit connected to said first section at a feed connection point; and

a second radio circuit connected to said second section at a ground connection point, wherein said second radio circuit includes at least one of a switch and a passive circuit for operating said antenna arrangement in a plurality of modes.

13. The antenna arrangement of claim 12, wherein said slot is between said feed connection point and said ground connection point.

14. An antenna arrangement, comprising:

a planar patch conductor including a first slot dividing said planar patch conductor into a first section and a second section;

a first radio circuit connected to said first section at a feed connection point;

a second radio circuit connected to said first section at a first ground connection point; and

a third radio circuit connected to said second section at a second ground connection point.

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15. The antenna arrangement of claim 14, wherein said first slot asymmetrically divides said planar patch conductor
16. The antenna arrangement of claim 15, where said first section is smaller than said second section
17. The antenna arrangement of claim 14, wherein said second radio circuit includes at least one of a switch and a passive circuit for operating said antenna arrangement in a plurality of modes.
18. The antenna arrangement of claim 14, wherein said third radio circuit includes at least one of a switch and a passive circuit for operating said antenna arrangement in a plurality of modes.
19. The antenna arrangement of claim 14, wherein said first slot is between the first ground connection point and the second ground connection point

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22. An antenna arrangement, comprising:
- a planar patch conductor including a first slot dividing said planar patch conductor into a first section and a second section;
  - a first radio circuit connected to said first section at a first feed connection point;
  - a second radio circuit connected to said first section at a ground connection point;
  - and
  - a third radio circuit connected to said second section at a second feed connection point.
23. The antenna arrangement of claim 22, wherein said first slot asymmetrically divides said planar patch conductor.
24. The antenna arrangement of claim 23, where said first section is smaller than said second section.
25. The antenna arrangement of claim 22, wherein said first radio circuit includes a first filter.

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26. The antenna arrangement of claim 25, wherein said third radio circuit includes a second filter.

27. The antenna arrangement of claim 22,  
wherein said first radio circuit includes a high-pass filter; and  
wherein said third radio circuit includes a low-pass filter.

28. The antenna arrangement of claim 22, wherein said first slot is between the first feed connection point and the second feed connection point.